Remarks:

The claims are 1-4 with claim 1 the sole independent claim. Claim 1 has been amended to better define the intended invention and reconsideration of the claims is expressly requested.

Support for the amendment to claim 1 is found *inter alia*, in Fig. 10 and on page 13, lines 9-21; page 23, line 7 to page 24, line 2; and page 24, line 25 to page 25, line 11.

The Examiner had rejected claims 1-3 as obvious over Kawaguchi '131 in view of Kagami '349. The Examiner admits Kawaguchi fails to disclose an underlayer formed of a first and second underlayer, wherein the second underlayer is adjacent to the magnetic domain wall displacement layer, the first underlying layer is adjacent the second underlying layer on the substrate side, and the first underlying layer has a lower density than the second underlying layer. The Examiner relies on Kagami for the disclosure of the first and second underlayers in Figure 5 having the same spatial and density relationships as above. With regard to claim 4, Chen '932 is said to be directed to controlling deposition rates by controlling a distance between a substrate and a target. In the Response to Arguments portion of the Official Action, the Examiner argues Kagami discloses a DWDD-type disc in Col. 5, lines 39-54. The grounds of rejection are respectfully traversed.

Prior to addressing the grounds of rejection applicant wishes to briefly review certain key features and advantages of the present claimed invention.

The applicant has found that the surface of the resin substrate has irregularities normally equal to or larger than a recording mark length, wherein the irregularities cause non-uniform surface roughness. These irregularities can be flattened by the specific claimed underlying first and second layers. The surface roughness of the substrate is made more uniform by the presence of the first underlying layer, thus allowing adjustment of the surface roughness of the resin substrate. In the present invention, the magnetic domain wall of a magnetic domain wall displacement layer is displaced toward a side of higher temperature according to a temperature gradient in the magneto-optical recording medium on reproducing (regenerating).

On the other hand, Kawaguchi (USP6,826,131) discloses that an intermediate layer (corresponding to the switching layer of the present invention), which is an in-plane magnetic film at room temperature, is used in order to allow short recording marks to be formed stably transferred upon reproduction. However, as indicated by the Examiner, Kawaguchi does not disclose that a protective layer spaced between a substrate and the magnetic domain wall displacement layer is formed into two sub-layers.

Kagami (USP5,341,349) merely discloses that a recording magnetic film (corresponding to the recording layer of the present invention) is formed on a dielectric layer formed by stacking alternating layers having different etching rates with respect to a fluoric acid in order to increase the recording sensitivity of a magneto-optical recording medium. A more dense dielectric layer is etched at a lower rate and a less dense dielectric layer is etched at a higher rate.

In the Office Action, the Examiner asserts that Kagami discloses DWDD because there is description regarding displacement of the magnetic domain wall on Col. 5, lines 39-54 of Kagami.

However, the meaning of the phrase "displacement of the magnetic domain wall" in Kagami is quite different from the meaning of the phrase "displacement of the magnetic domain wall toward a side of higher temperature according to a temperature gradient in the magneto-optical recording medium on reproducing" of the present claimed invention.

The displacement of the magnetic domain wall in Kagami is displacement of the magnetic domain wall of a recording magnetic domain on recording as described in Col. 1; Col. 5, lines 50-54; Col. 7, lines 1-3; Col. 8, lines 3-5; and Col. 9, lines 38-42. In Kagami, in the process of forming a recording magnetic domain on a recording magnetic layer, by applying a recording magnetic field to the recording magnetic layer at a constant temperature, the magnetic domain wall is displaced so that the magnetic domain is merely enlarged and made wider to form the recording magnetic domain.

The recording magnetic layer of Kagami, as described above, is clearly different from the "the magnetic domain wall displacement layer having the magnetic domain wall which is displaced toward a side of higher temperature according to a temperature gradient in the magneto-optical recording medium on reproducing of the present invention. The recording magnetic layer of Kagami corresponds to the recording layer of the present claimed invention, rather than the magnetic domain wall displacement

layer of the present invention. Therefore, Kagami does not disclose a DWDD-type medium.

Neither Kawaguchi nor Kagami disclose or suggest the above-noted technical idea of the present invention. Therefore, even if the underlaying layer of Kagami is combined with Kawaguchi, there is no motivation for applying the dielectric layer of Kagami to a dielectric layer arranged between a substrate and a magnetic domain wall displacement layer. Based on the disclosure of Kagami, the dielectric layer of Kagami is to be applied to a protective layer 14 (a dielectric layer adjacent to a recording layer) in the layer structure of Kawaguchi.

Neither Kawaguchi nor Kagami suggests the specific effect of the present invention that magnetic domain wall displacement is made more uniform by using the underlying layer of the present invention in a DWDD-type medium.

Taken another way, Kagami '349 discloses that a recording magnetic film (corresponding to the recording layer of the present invention) is formed on a dielectric layer formed by stacking alternating layers having different etching rates with respect to a fluoric acid in order to increase the recording sensitivity of a magneto-optical recording medium. This is performed because a dielectric material having high uniformity is provided under the magnetic recording layer to reduce the coercive force of the recording magnetic film, whereby a stable signal recording can be performed even by a low magnetic field.

The technical idea of Kagami resides in that the recording sensitivity of a magnetic layer, where information recording is conducted, is improved. Therefore, the dielectric layer, which is a feature of Kagami, must be arranged adjacent to a surface of a recording layer on the substrate side. On the other hand, the DWDD-type recording medium disclosed by Kawaguchi has a switching layer on a surface of a recording layer at the substrate side. This arrangement is employed because the medium disclosed by Kawaguchi is DWDD-type medium. Kawaguchi is directed to reproducing information stabilizing magnetic-domain enlargement, while Kagami seeks to enhance recording sensitivity. See Kawaguchi, Col. 2, lines 29-32; Col. 4, lines 43-45; Col. 8, lines 10-12; and Col. 12, lines 15-21.

Accordingly, one cannot readily apply the invention of Kagami to a DWDD-type medium disclosed by Kawaguchi without losing the function of the DWDD-type medium disclosed by Kawaguchi. In addition, it is meaningless to arrange a dielectric layer, which is a critical feature of Kagami, between a magnetic domain wall displacement layer and a substrate as in Kawaguchi. DWDD-type media are different in kind and operate by different principles from the recording medium of Kagami.

Therefore, applicant submits that none of the references, whether considered alone or combined, discloses or suggests the present claimed invention nor renders it unpatentable. Accordingly, it is respectfully requested that the Amendment be entered, the final rejection withdrawn, the claims be allowed and that the case be passed to issue.

Applicant's undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address given below.

Respectfully submitted,

/Peter Saxon/
Peter Saxon
Attorney for Applicant
Registration No. 24,947

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, NY 10112-3801
Facsimile: (212) 218-2200

FCHS_WS 1548402v1